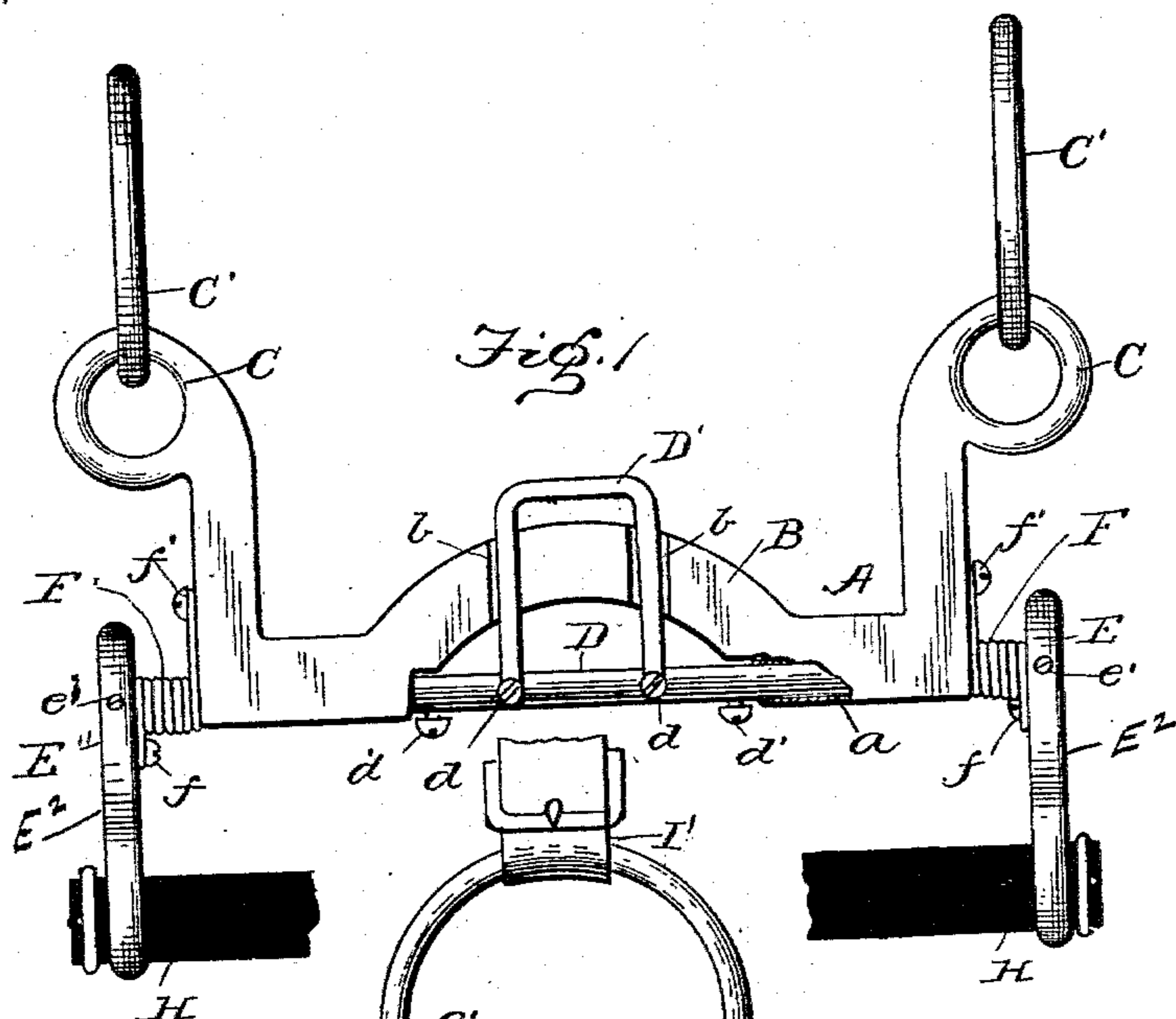


(No Model.)

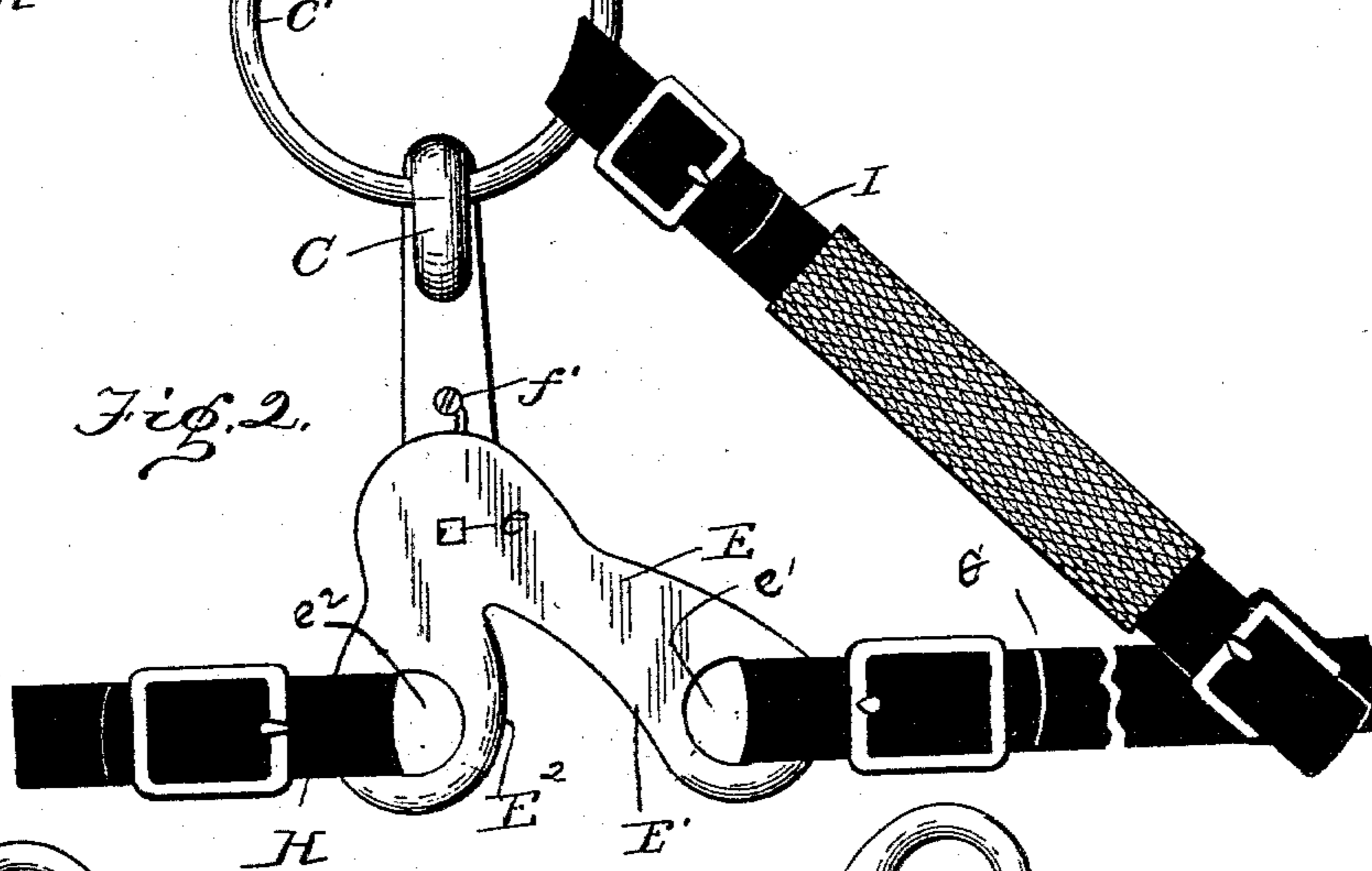
A. EASTWOOD.  
BRIDLE BIT.

Patented Dec. 10, 1895.

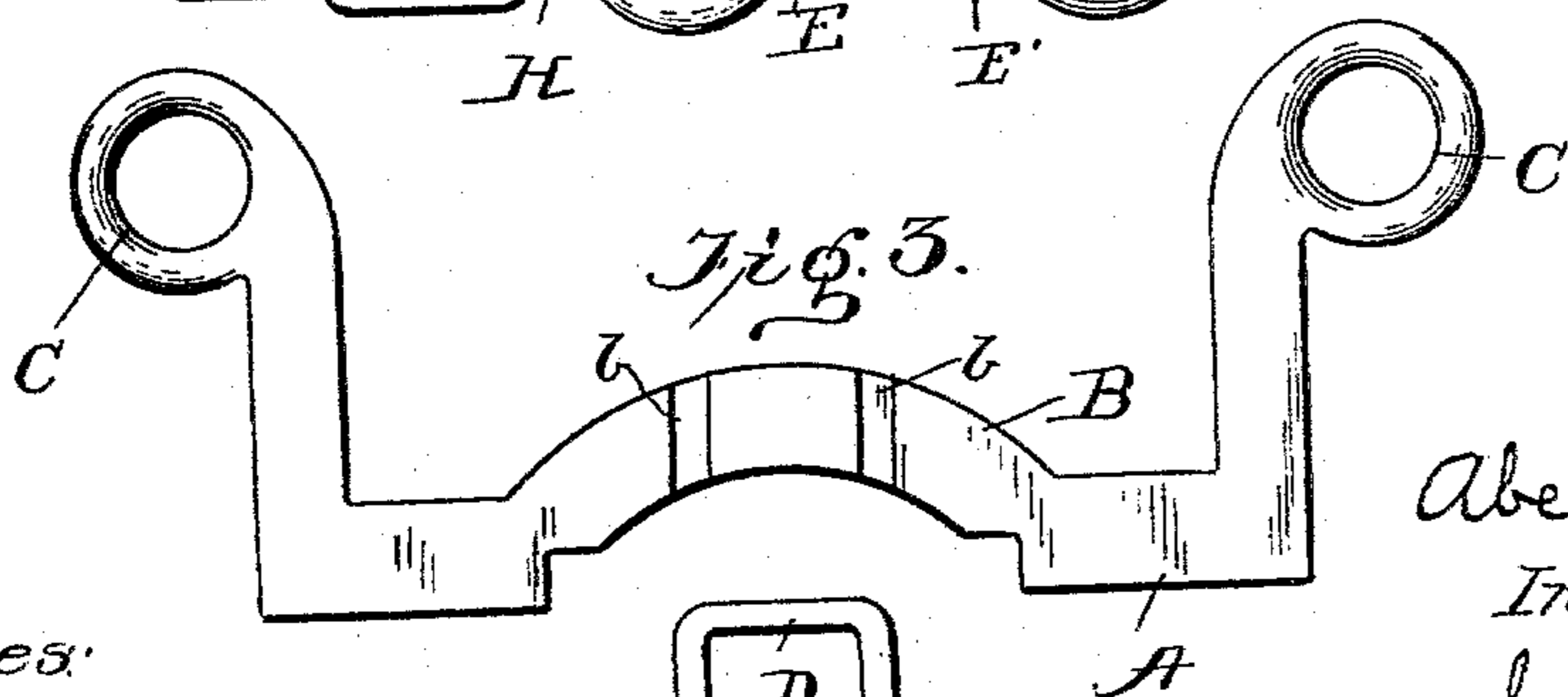
No. 551,267.



*Fig. 2.*



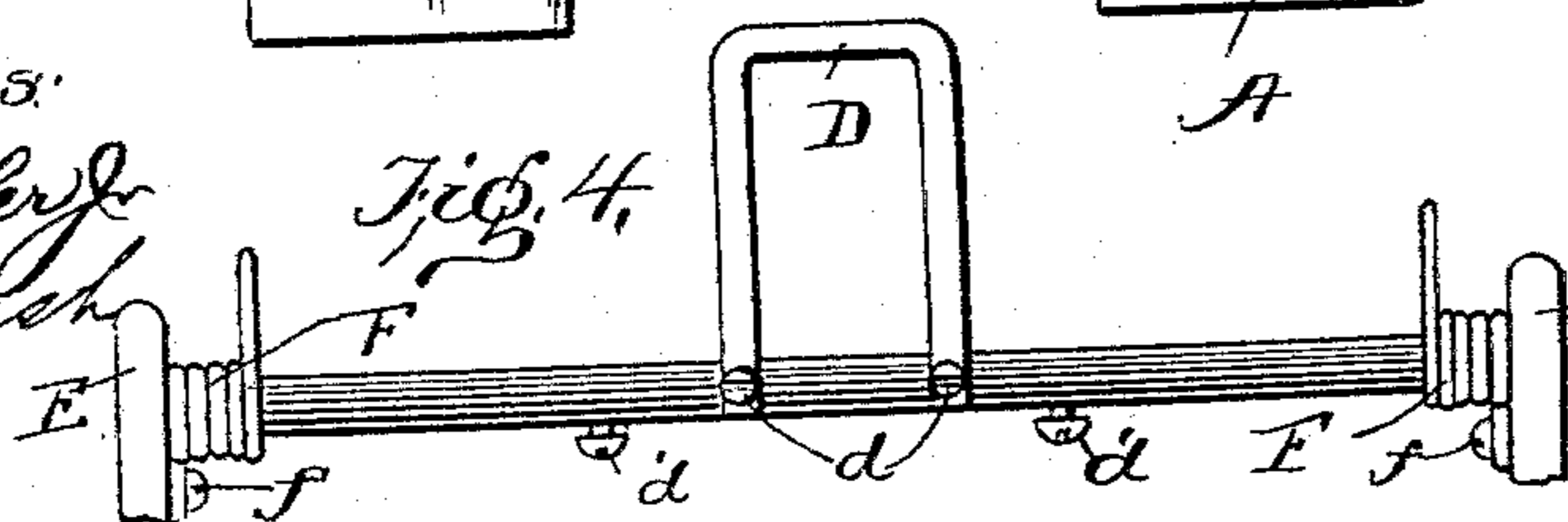
*Fig. 3.*



Witnesses:

*M. Fowler*  
*R. B. Marsh*

*Fig. 4.*



Abel Eastwood  
Inventor:

by  
*M. Dorian*  
Attorney

# UNITED STATES PATENT OFFICE.

ABEL EASTWOOD, OF BUCYRUS, OHIO.

## BRIDLE-BIT.

SPECIFICATION forming part of Letters Patent No. 551,267, dated December 10, 1895.

Application filed May 28, 1895. Serial No. 550,923. (No model.)

*To all whom it may concern:*

Be it known that I, ABEL EASTWOOD, a citizen of the United States, residing at Bucyrus, in the county of Crawford and State of Ohio, have invented certain new and useful Improvements in Safety Bridle-Bits; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improvement in safety bridle-bits, and it consists in the peculiar arrangement and construction of the several parts hereinafter described, and definitely pointed out in the claims.

The object of the invention is the provision of a bit which may be used alike on vicious or gentle horses, and, in the case of the former, one which will give the driver control of the animal at all times. This object is attained by the construction shown in the accompanying drawings, wherein like letters of reference indicate corresponding parts in the several views, and in which—

Figure 1 is a front elevation of a bit constructed according to my invention. Fig. 2 is a side elevation of the same, showing the driving-rein, and curb-rein, and nose and head straps attached. Fig. 3 is a detail view of the spindle with curb attached and mouthpiece detached, and Fig. 4 is a view of the mouthpiece detached.

In the drawings, A represents the mouthpiece, having its central portion B arched or curved. Each end is extended at an angle with the longitudinal part and terminates in an eye C within which is loosely secured a ring C', to which is affixed the curb-rein I and the head-strap I'.

The mouthpiece A is provided with a longitudinal opening *a* through which the spindle D passes. Affixed to the center of the spindle D by set-screws *d*, or other suitable means, is a curb D', of approximately inverted-U shape, formed of heavy wire, and resting, when in the normal position, in recesses *b*, formed in the arched portion B of the mouthpiece A. On either side of the curb D', and affixed to the under side of the spindle D, is a screw or lug *d'* for the purpose hereinafter described. The mouthpiece A being shorter than the spindle D a space is left between the ends of the

mouthpiece A and the cheek-pieces E, and within this space, and sleeved upon the spindle D, is a coiled spring F, one end of which is fastened to the outside of the mouthpiece A by means of a screw *f* and the other end to the inside of the cheek-pieces E by means of a screw *f'*. The ends of the spindle D are squared and inserted in suitable openings *e* in the cheek-pieces E.

Each of the cheek-pieces E consists of a pair of diverging arms E' E<sup>2</sup> terminating in eyes *e'* *e*<sup>2</sup>, to the former of which the driving-reins G are attached and to the latter of which the respective ends of a nose-strap H are fastened. Countersunk binding-screws *e*<sup>3</sup> are provided for preventing movement of the cheek-pieces E upon the spindle D.

The several parts being assembled, the driving-rein G is attached to the eye *e'* of the cheek-pieces E and is carried up and attached to the curb-rein I, which is a short rein of flexible material, by means of the buckle *i* and thence over the horse's back in the usual manner. The nose-strap H is affixed to the two eyes *e*<sup>2</sup> by the ordinary means, and when the bit is in its normal position in the horse's mouth will lightly rest upon the horse's nose. The usual head-strap I' is affixed in the ordinary way to the ring C'. In driving, the reins are held lightly, sufficient force only being used to keep them tight enough to direct the movements of the horse.

If the horse becomes fractious, or attempts to run away, to subdue him it is only necessary for the driver to pull strongly and steadily upon the reins, which causes curb D' and the mouthpiece to turn in opposite directions (the former exerting pressure upon the roof of the horse's mouth and the mouthpiece pressing upon the horse's tongue) and also causes the arms E<sup>2</sup> carrying the nose-strap H to move downward and bring the latter tightly over the nose of the horse. Thus it will be seen that abnormal force exerted upon the driving-reins causes both downward and upward pressure to be put upon the horse's mouth and quickly opens the latter, and also causes a pressure to be put upon his nose which stops him from breathing.

To prevent the mouthpiece from turning too much on the spindle the lugs or screws *d'* are provided, and these, striking against the

shoulder formed at the base of the curved portion B of the mouthpiece, prevent the mouthpiece from revolving too much and at the same time act as a fulcrum.

5 When the horse has been reduced to subjection the driving-reins are relaxed and the mouthpiece A is returned to its normal position by the action of the coiled springs F.

10 It will be readily apparent that the danger of injury to the animal's mouth by jerking of the reins, from the tossing of the horse's head or similar causes is minimized by the use of the flexible curb-rein, which is of sufficient elasticity to resist a mere jerk while responding  
15 readily to a sharp or a regular and sustained pull.

To release the lever the driver has but to relax the pull on the driving-reins and the bit assumes its normal position in the horse's  
20 mouth, and this can be done so gradually as to be unobserved by the horse.

I am aware that many minor changes and alterations can be made in the construction and arrangement of the several parts without  
25 departing from the spirit of my invention.

Having described my invention, what I claim is—

1. The combination of the mouth piece having a central arch, a spindle extending horizontally through said mouth piece and having  
30 an arch parallel with the arch thereof and normally resting against the same, cheek pieces secured to the ends of said spindle, coiled springs upon the ends of said spindle, the ends of said springs being secured to said  
35 cheek pieces and mouth piece, and curb reins extending from the ends of said mouth piece

and designed to be secured to the driving reins, said mouth piece and spindle turning in opposite directions, substantially as described and for the purposes set forth. 40

2. The combination of a mouth piece having a central arch, a spindle, extending horizontally through said mouth piece and having an arch parallel with the arch thereof and normally resting against the same, cheek pieces secured to the ends of said spindle, each of said cheek pieces consisting of a pair of approximately diverging arms having openings at their free ends, a nose strap connecting the forward arms of said cheek pieces, flexible  
50 curb reins for connecting the mouth piece with the driving reins, and coiled springs for returning said mouth piece and spindle to their normal positions, substantially as described. 55

3. The combination of a mouth piece having a central arch formed with grooves, a spindle extending through said mouth piece and provided with an arch normally received by said  
60 grooves, means for turning said mouth piece and spindle in opposite directions, a stop projecting from said spindle and designed to engage said mouth piece to limit the movement of said parts, and springs for returning said  
65 parts to their original positions, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

ABEL EASTWOOD.

Witnesses:

W. H. SHECKLER,  
F. K. NOBLET.